

Exhibit 6. Measured Data -- Pursuant 47 CFR. 2.1041**6.1. RF Power Output Data -- Pursuant 47 CFR 2.1033(c)8, 2.1046(a)**

The RF power output was measured at the nominal battery voltage of 5.4 V (unloaded battery terminal voltage). The voltage applied to and current into the final RF amplifying device U503 is indicated below. The measurements were taken during a transmission pulse.

At the minimum power setting:

| | | |
|-------------------|------|----------------------------|
| Mean output power | 1.12 | miliWatts (Pulse averaged) |
| DC Voltage | 4.7 | Volts (Pulse averaged) |
| DC Current | 273 | mA (Pulse averaged) |

| | | |
|---|-----|----|
| Mean Input Power for the final RF Amplifying Module | 3.5 | uW |
|---|-----|----|

At the maximum power setting:

| | | |
|-------------------|------|------------------------|
| Mean output power | 1.2 | Watts (Pulse averaged) |
| DC Voltage | 4.7 | Volts (Pulse averaged) |
| DC Current | 1.14 | A (Pulse averaged) |

| | | |
|---|------|----|
| Mean Input Power for the Final RF Amplifying Module | 3.75 | mW |
|---|------|----|

6.2. Modulation Characteristics Data -- Pursuant 47 CFR 2.1033(c)13, 2.1047(d)

Digitally encoded speech or digital data is transmitted in four sub-channels at a 4 kHz rate using M-array symbols mapped to predetermined fixed magnitude and phase components within 1 of 3 constellations associated with a particular modulation scheme. Figure 6-2 illustrates symbol mapping to one of the four QPSK sub-channels constellations. Figure 6-3 illustrates symbol mapping to one of the four-16QAM sub-channels constellation. Figure 6-4 illustrates symbol mapping to one of the four-64QAM sub-channels constellation. For Quad-QPSK modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 4 points on the constellation. For Quad-16QAM modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 16 points on the constellation. For Quad-64 modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 64 points on the constellation.

After conversion by the D/A converters in U401 (see Figure 4-3 in Exhibit 4), the necessary bandwidth of the sub-channels is limited to 4.8 kHz by the pair of modulation limiting low pass filters. The transfer response of these filters is depicted in Figure 6-1 where the filter excess bandwidth coefficient of 0.2 is shown. This excess bandwidth leads to the necessary bandwidth calculation of $(1 + 0.2) \times (4 \text{ kHz}) = 4.8 \text{ kHz}$. Since the sub-channels are spaced 4.5 kHz apart, the necessary bandwidth of the composite 4 sub-channel symbol streams is $4.8 + (3 \times 4.5) = 18.3 \text{ kHz}$.

Figure 6-1: Modulation Low Pass Filter Response

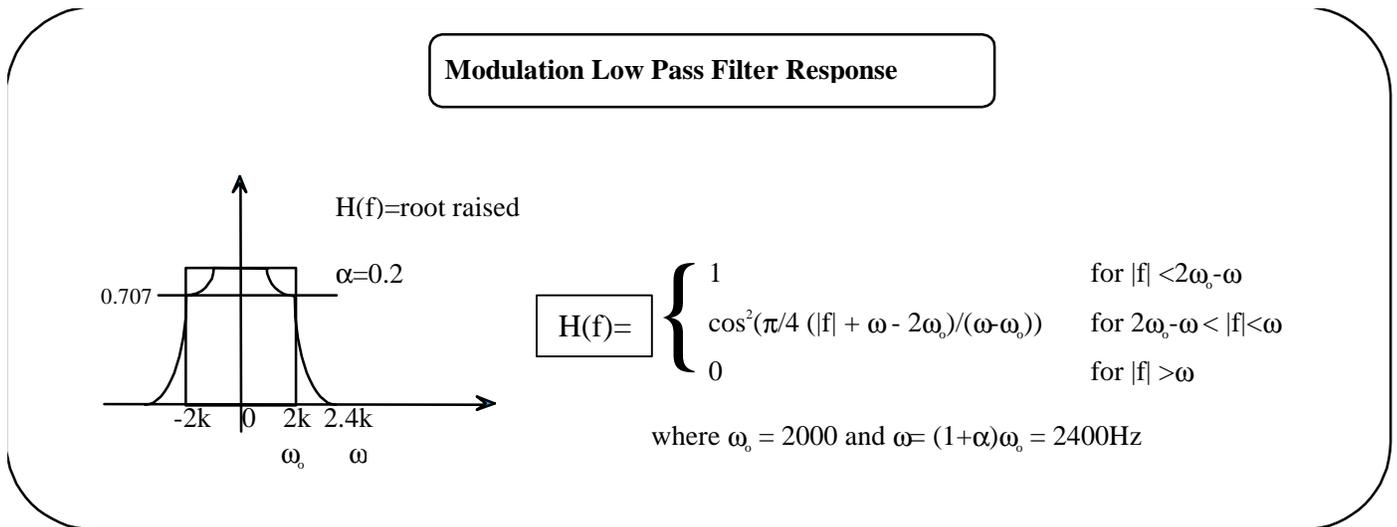


Figure 6-2: Symbol Mapping onto One of Four QPSK Constellations

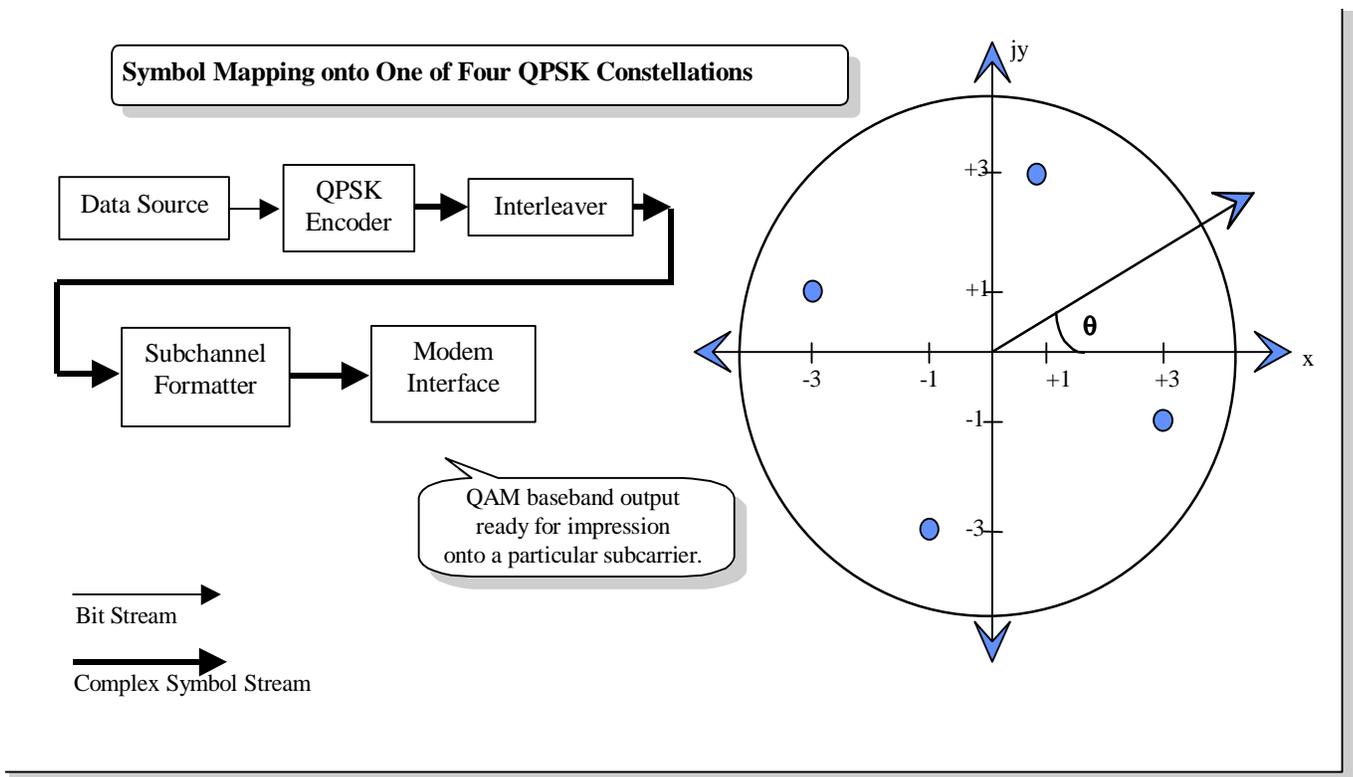


Figure 6-3: Symbol Mapping onto One of Four 16-QAM Constellations

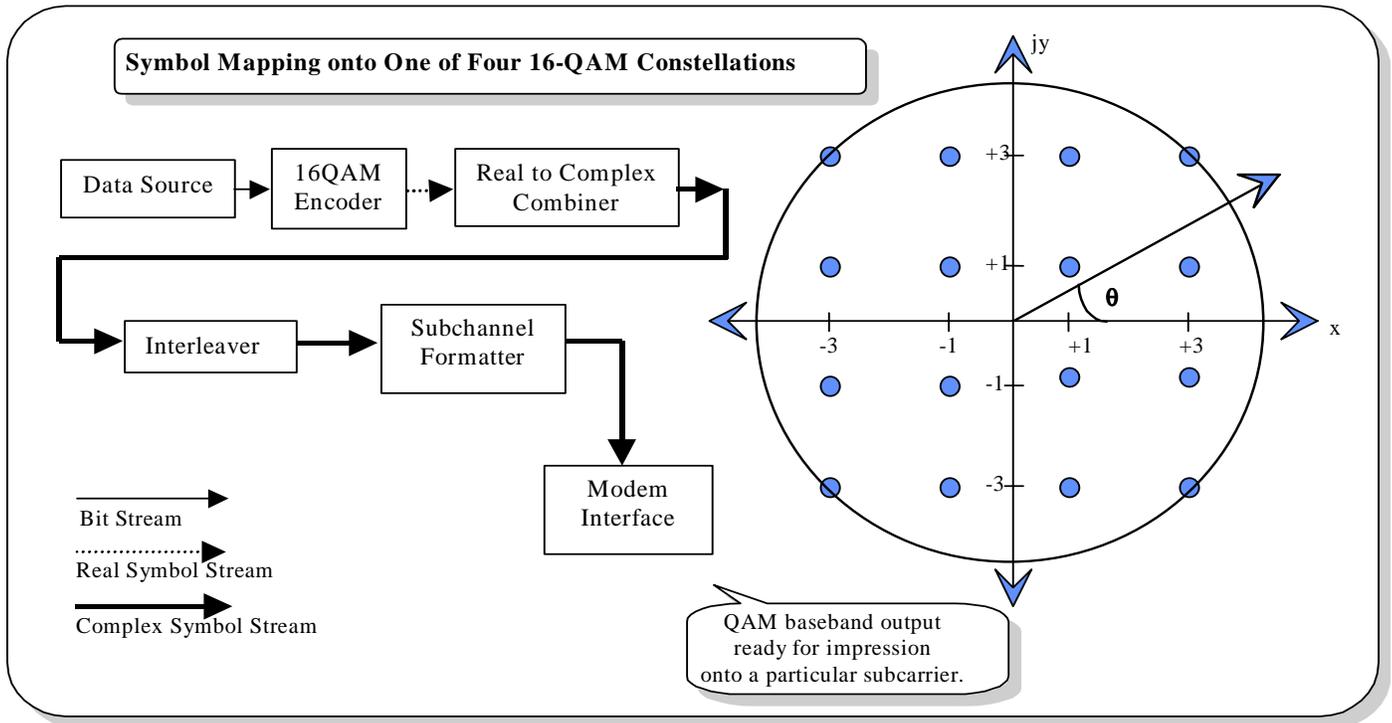
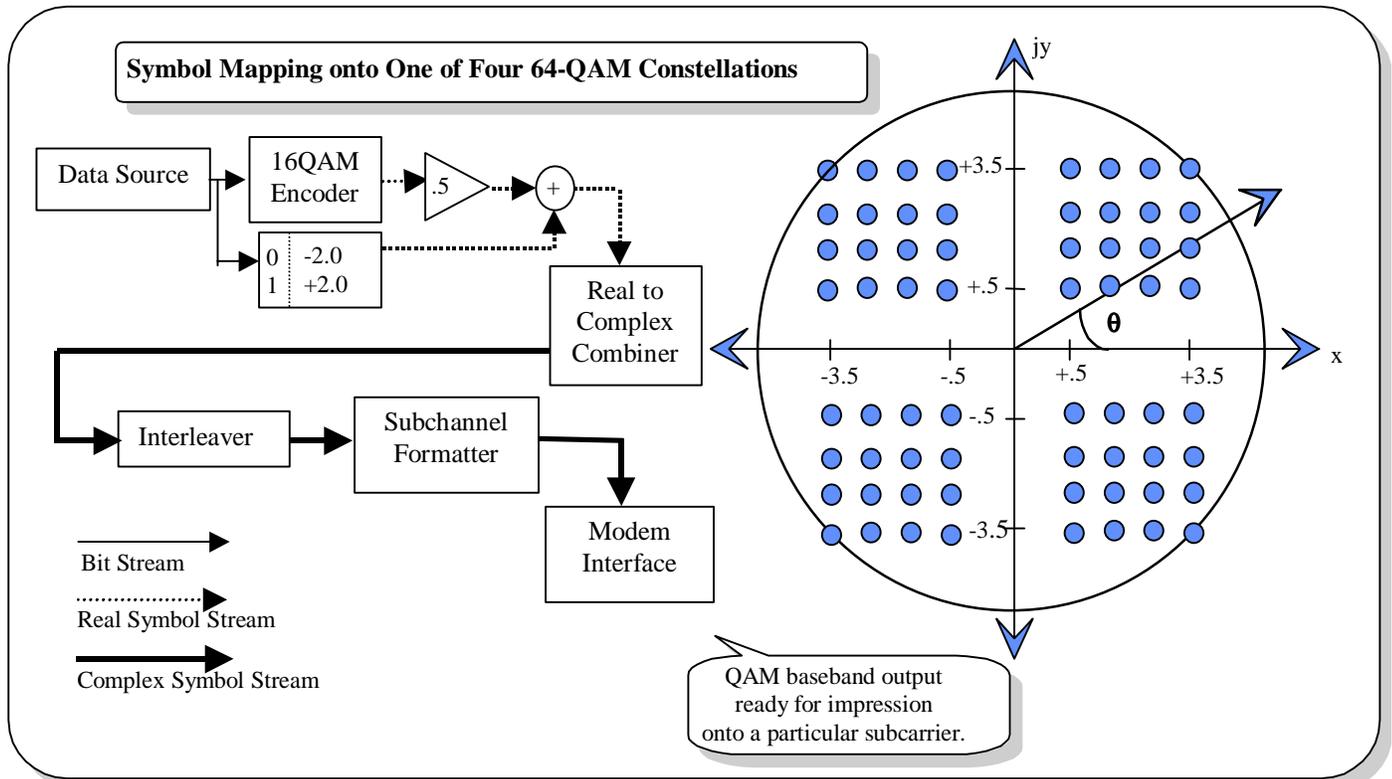


Figure 6-4: Symbol Mapping onto One of Four 64-QAM Constellations



6.3. Occupied Bandwidth Data -- Pursuant 47 CFR 2.1049(h), 90.669(a)

The method described in paragraph 7.2 was employed with the following conditions:

For Quad-QPSK Modulation:

32K Bits Per Second Pseudo-Random Digital Modulation.

Vertical division: 10 dB/div.

Carrier Reference: Carrier Reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

For Quad-16QAM Modulation:

64K Bits Per Second Pseudo-Random Digital Modulation

Vertical: 10 dB/div

Carrier Reference: Carrier Reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

For Quad-64QAM Modulation:

96K Bits Per Second Pseudo-Random Digital Modulation

Vertical: 10 dB/div

Carrier Reference: Carrier Reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

In Figures 6-5 through Figure 6-22, one trace was used to capture transmitter performance, measured using a resolution bandwidth of 300 Hz, while the reference level was obtained by another trace, using a resolution bandwidth of 30 kHz. A third trace shows the applicable emission mask.

6.3.1 Measured Data – maximum power setting

Refer to Figures 6-5, 6-8 and 6-11 for Quad-QPSK Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and maximum power setting.

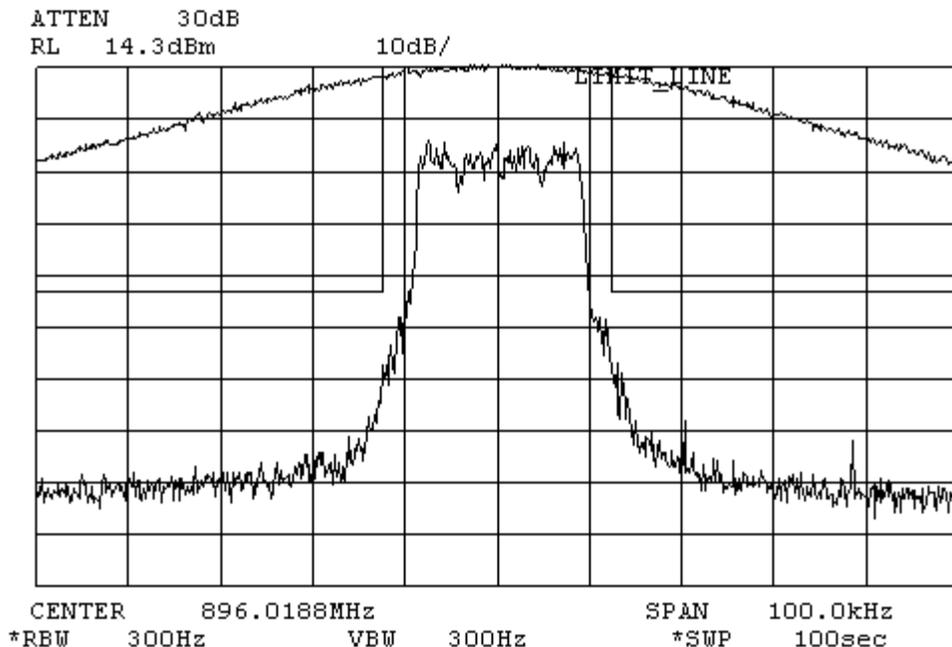
Refer to Figures 6-6, 6-9 and 6-12 for Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and maximum power setting.

Refer to Figures 6-7, 6-10 and 6-13 for Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and maximum power setting.

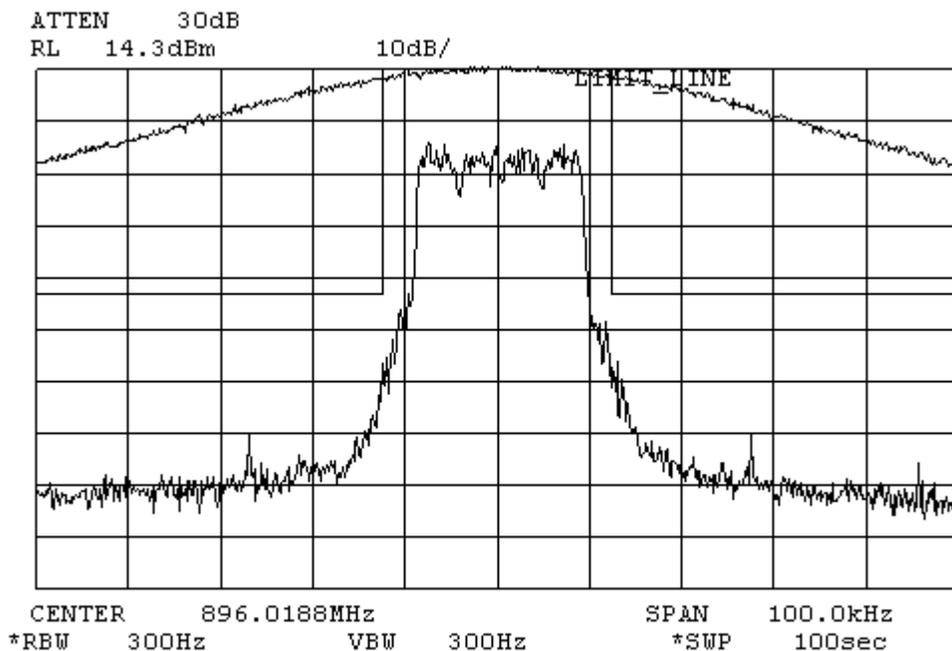
a) Limits per 47 CFR 90.669(a)

On any frequency in an Metropolitan Trade Area (MTA) licensee's spectrum block that is adjacent to a non-MTA frequency, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 plus $10 \log_{10}$ (Output Power in Watts) decibels or 80 decibels, whichever is lesser attenuation.

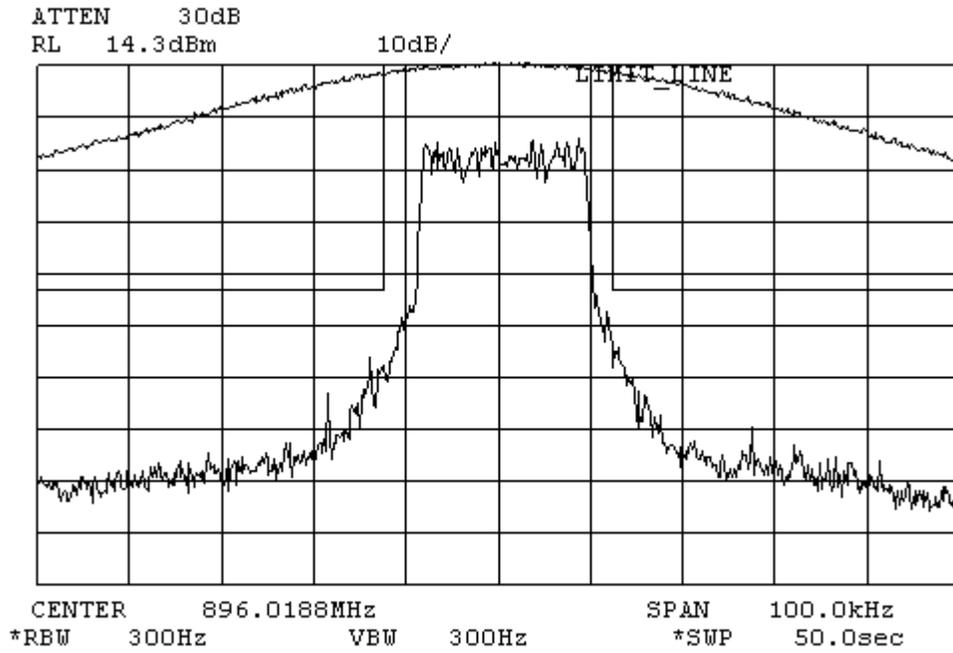
**Figure 6-5: Quad-QPSK Modulation performance relative to mask 47 CFR 90.669(a)
896.01875MHz, MAXIMUM POWER SETTING:**



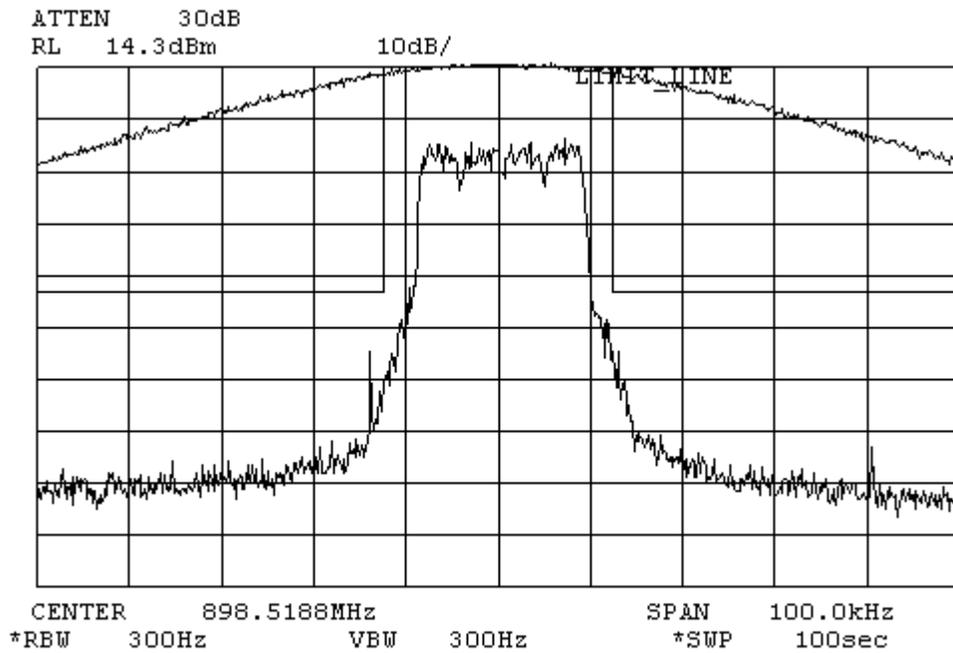
**Figure 6-6: Qaud-16QAM Modulation performance relative to mask 47 CFR 90.669(a)
896.01875MHz, MAXIMUM POWER SETTING:**



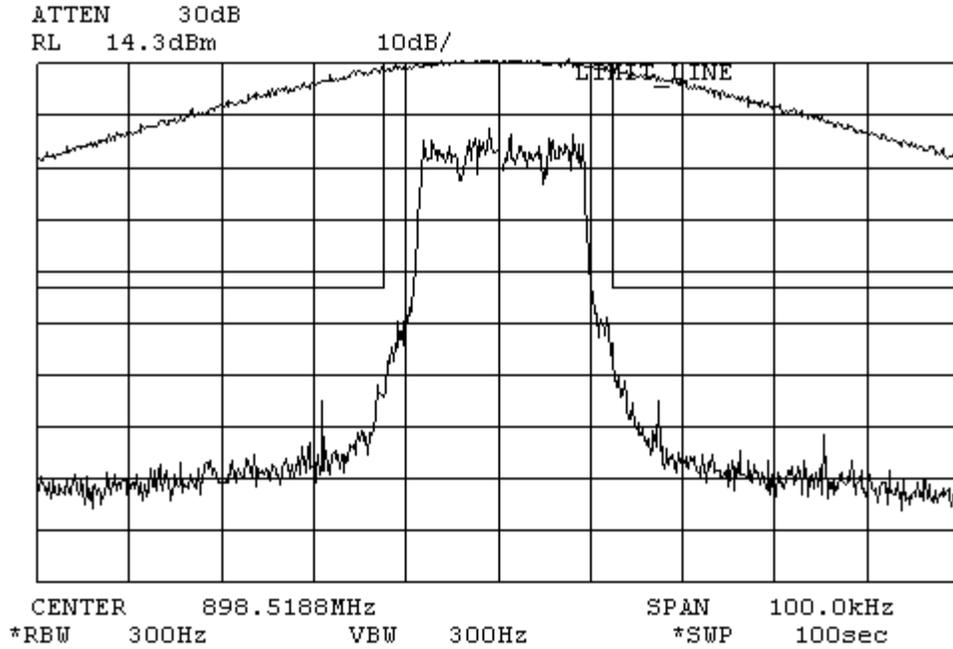
**Figure 6-7: Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a)
896.01875MHz, MAXIMUM POWER SETTING:**



**Figure 6-8: Quad-4QPSK Modulation performance relative to mask 47 CFR 90.669(a)
898.51875MHz, MAXIMUM POWER SETTING:**



**Figure 6-9: Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a)
898.51875MHz, MAXIMUM POWER SETTING:**



**Figure 6-10: Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a)
898.51875MHz, MAXIMUM POWER SETTING:**

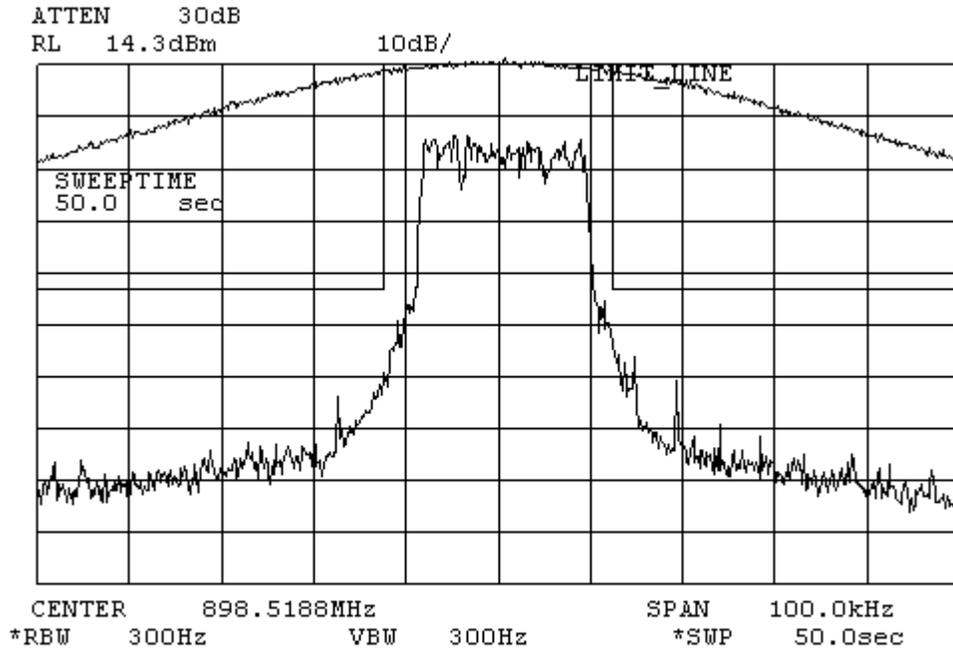


Figure 6-11: Quad-QPSK Modulation performance relative to mask 47 CFR 90.669(a) 900.99375MHz, MAXIMUM POWER SETTING:

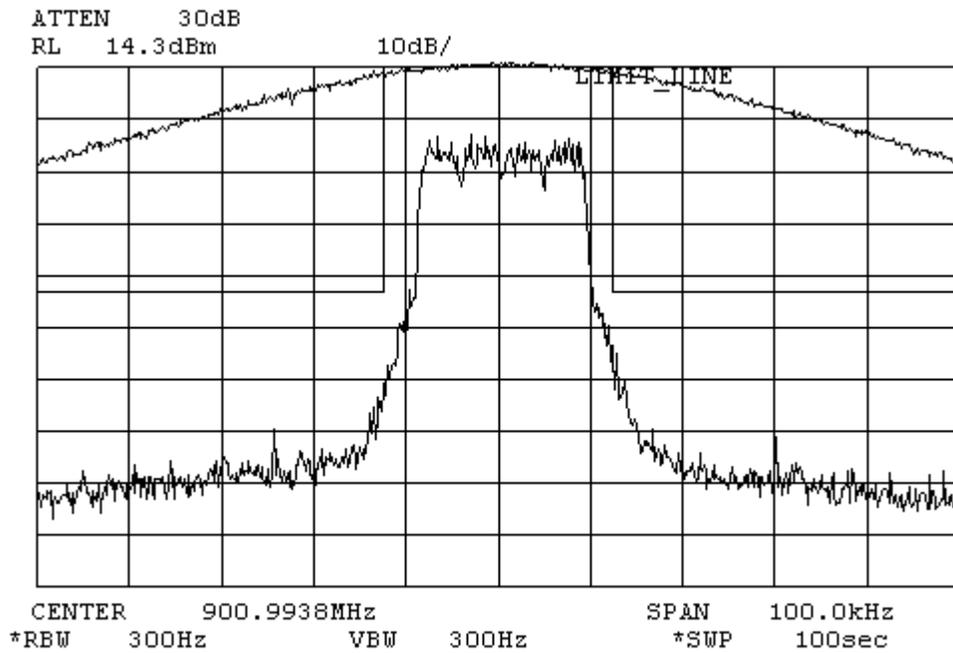
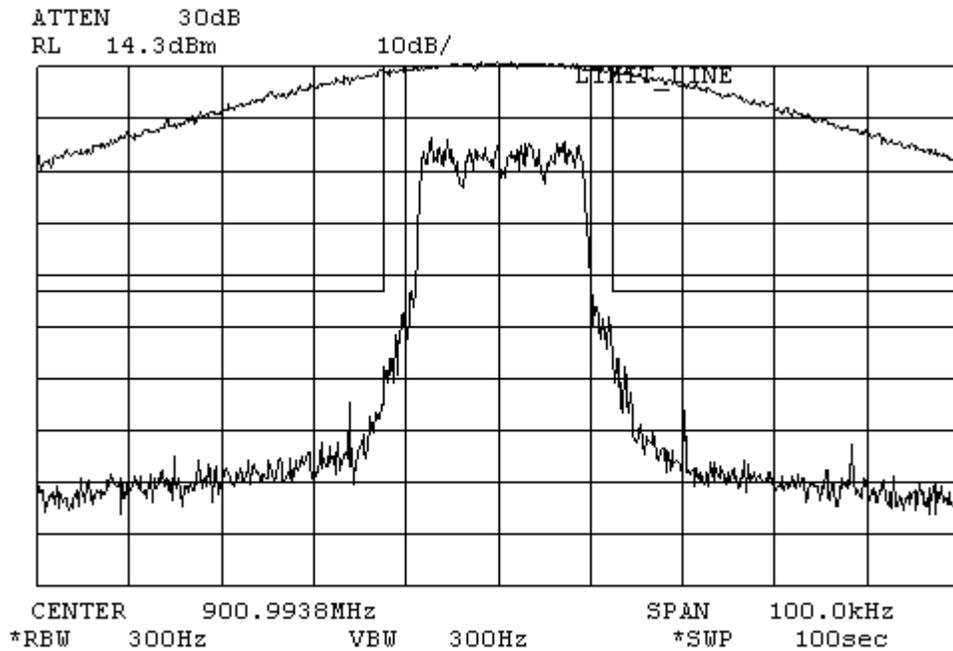
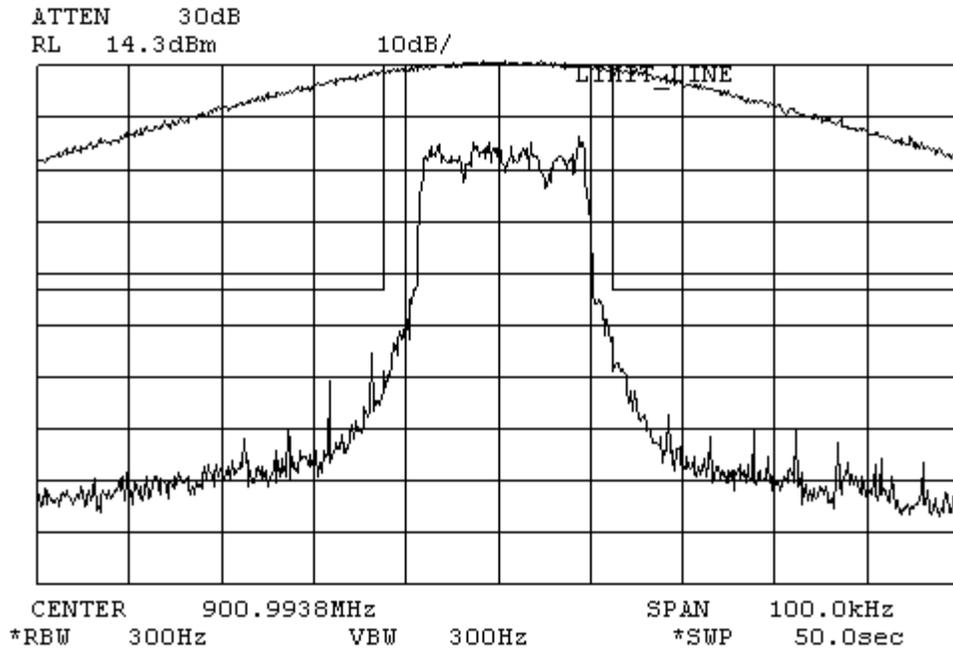


Figure 6-12: Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a) 900.99375MHz, MAXIMUM POWER SETTING:



**Figure 6-13: Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a)
900.99375MHz, MAXIMUM POWER SETTING:**



6.3.2 Measured Data – minimum power setting

Refer to Figures 6-14, 6-17 and 6-20 for Quad-QPSK Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and minimum power setting.

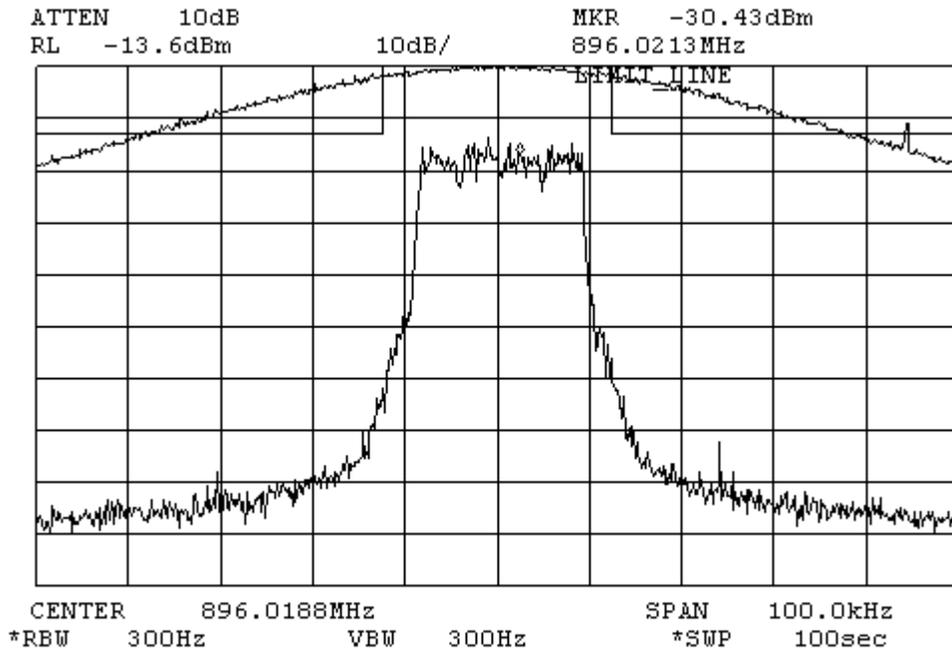
Refer to Figures 6-15, 6-18 and 6-21 for Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and minimum power setting.

Refer to Figures 6-16, 6-19 and 6-22 for Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a) at different frequencies across the transmit band and minimum power setting.

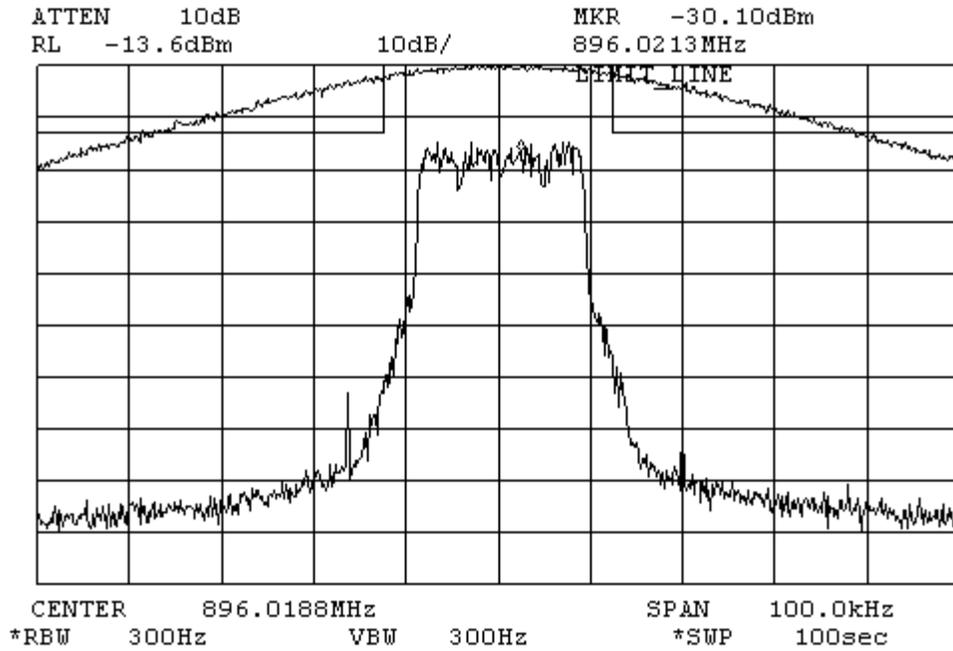
a) Limits per 47 CFR 90.669(a)

On any frequency in an Metropolitan Trade Area (MTA) licensee's spectrum block that is adjacent to a non-MTA frequency, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 plus 10 log₁₀(Output Power in Watts) decibels or 80 decibels, whichever is lesser attenuation.

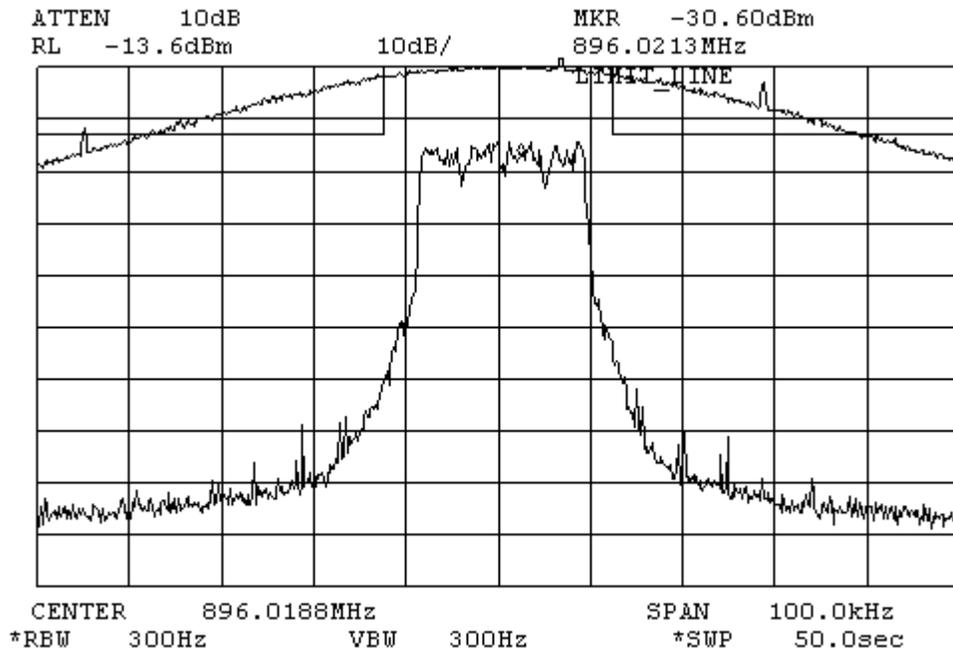
Figure 6-14: Quad-QPSK Modulation performance relative to mask 47 CFR 90.669(a) 896.01875MHz, MINIMUM POWER SETTING:



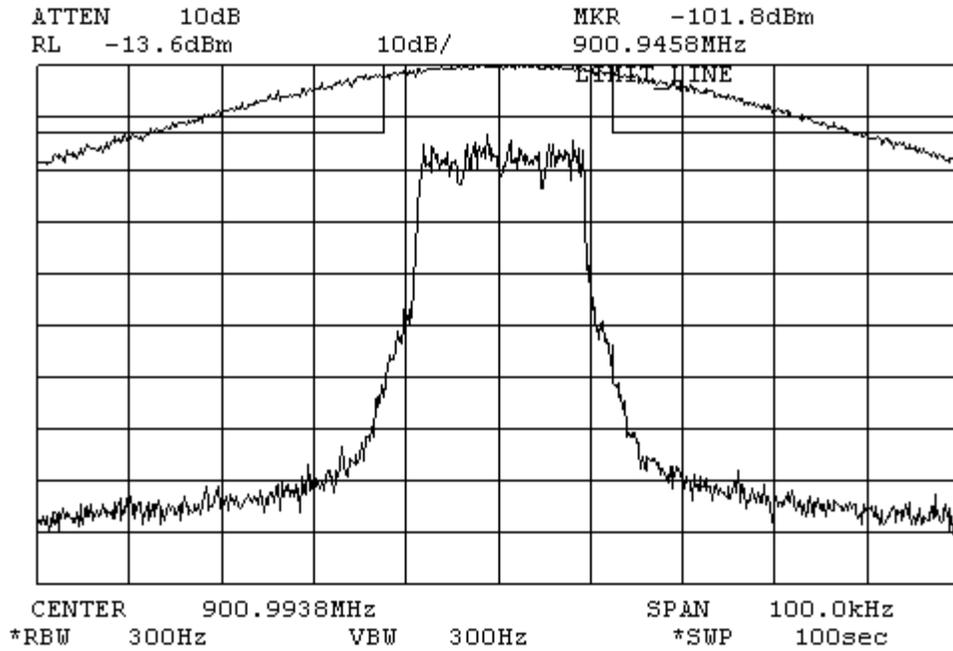
**Figure 6-15: Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a)
896.01875MHz, MINIMUM POWER SETTING:**



**Figure 6-16: Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a)
896.01875MHz, MINIMUM POWER SETTING:**



**Figure 6-21: Quad-16QAM Modulation performance relative to mask 47 CFR 90.669(a)
900.99375MHz, MINIMUM POWER SETTING:**



**Figure 6-22: Quad-64QAM Modulation performance relative to mask 47 CFR 90.669(a)
900.99375MHz, MINIMUM POWER SETTING:**

